

## ABSTRACT

[0064] A cooling system for electronic components and printed circuit boards (PCBs) provides close thermal contact of a bulk coolant circulating through channels formed inside or on the surface of a multi-layer PCB carrying the electronic components, such that heat produced by the components is efficiently removed to a heat sink. The circulation channels may be formed by removing portions of layers, and inserting overlaying vias, during manufacturing or assembly of the PCB.

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